

WHAT IS CLAIMED IS:

1. A device for supplying snap rings, the device comprising:

5 a magazine containing C-shaped snap rings piled together each of which has a gap;

an extrusion member that pushes out a snap ring occupying a lowest position in the magazine so that the gap of the snap ring is directed forwardly in an extruding direction;

10 a conveying path that conveys the snap ring pushed out by the extrusion member to an area in which the snap ring is contracted to reduce a diameter of the snap ring;

a projection-strip guide wall formed to stand upwardly in a substantially vertical direction with a width with which
15 the projection-strip guide wall can enter the gap of the snap ring in a termination area of the conveying path; and

a restricting mechanism that restricts the gap of the snap ring so that the gap is directed in a direction from the magazine to the projection-strip guide wall.

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2. The device for supplying snap rings as set forth in Claim 1, wherein

the restricting mechanism includes:

an oscillating member having a long guide part, the guide
25 part being protractible and retractable with respect to a conveying surface of the conveying path and having a width that can enter the gap; and

an urging member that urges the oscillating member so that the guide part protrudes from the conveying surface.

3. The device for supplying snap rings as set forth
5 in Claim 2, wherein

the guide part of the oscillating member is formed to enter the gap of the snap ring occupying the lowest position in the magazine in a stand-by state in which the snap ring has not yet been pushed out.

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4. The device for supplying snap rings as set forth in Claim 1, further comprising a cover member disposed above the projection-strip guide wall,

the cover member have a guide part formed to guide the
15 gap of the snap ring downwardly so as to direct the gap of the snap ring conveyed by the extrusion member toward the projection-strip guide wall.

5. The device for supplying snap rings as set forth
20 in Claim 4, wherein

the guide part of the cover member consists of a pair of guide parts formed to protrude from a lower surface thereof at positions symmetrical with respect to the projection-strip guide wall.

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6. The device for supplying snap rings as set forth in Claim 5, wherein

each of the pair of guide parts has a contact surface curved so that a projection amount from the lower surface increases in a curve so as to come into contact with the snap ring.

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7. A method of supplying snap rings, the method comprising:

an extrusion step of pushing out a snap ring in a substantially horizontal direction, the snap ring being one
10 of a plurality of C-shaped snap rings piled together at a predetermined location and occupying a lowest position in the snap rings piled together; and

an attitude changing step of changing an attitude of the snap ring so that a gap of the snap ring is directed substantially
15 downwardly in a vertical direction in a termination area in the extrusion step and supplying the snap ring to an area in which the snap ring is contracted to reduce a diameter of the snap ring;

wherein, in the extrusion step, the snap ring is pushed
20 out while directing the gap forwardly in an extruding direction.

8. The method of supplying snap rings as set forth in Claim 7, wherein

the gap is directed by allowing a guide part protractible
25 and retractable in a substantially vertical direction to enter the gap.

9. The method of supplying snap rings as set forth in Claim 7, wherein, in the attitude changing step, the gap of the snap ring pushed out is forcibly directed downwardly.